

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:3287

ANSWERED ON:17.08.2005

GENERATION OF ELECTRICITY FROM FUSION REACTOR

Kaushal Shri Raghuvir Singh

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether the Government is aware that an Institute in Ahmedabad is working on research project to develop fusion reactor which can generate electricity as reported in the 'Rashtrdoot' dated July 5, 2005;
- (b) the details of the facts reported therein;
- (c) the reaction of the Government thereto; and
- (d) the action plan of the Government to generate electricity from fusion reactor?

Answer

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE(SHRI PRITHVIRAJ CHAVAN):
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- (a) Yes, Sir. Institute for Plasma Research (IPR), Gandhinagar is carrying out fusion research programme as an experimental activity.
- (b)&c) The Scientists and Engineer at the Institute for Plasma Research in Gandhinagar (Gujarat) have been carrying out experiments in Tokamak device – a magnetic bottle that can hold multimillion degree hot plasmas. The first Superconducting Steady State Tokamak (SST1) designed, fabricated and assembled at the IPR is awaiting commissioning. When SST-1 is put into operation, it is likely to be one of the first machines in the world to produce thousand second long-diverter plasma discharge. Taking into account the technology development related to fusion research being carried out in the IPR which is comparable with the laboratories in USA or Europe and even better in certain areas, the Government of India has approved the proposal for Indian participation in the International Thermonuclear Experimental Reactor (ITER) which will demonstrate scientific and technical feasibility of fusion energy for peaceful purposes, an essential feature of which would be achieving sustained fusion power generation.
- (d) As IPR is only carrying out experimental activities on fusion research at present, it is premature to think about any action plan to generate electricity from fusion reactor at this stage.